January 22, 2003

MODIS sensor Working Group (MsWG) Summary

Attendance: Bill Barnes, Bob Barnes, Stuart Biggar, Vincent Chiang, Roger Drake, Wayne Esaias, Bob Evans, Gerhard Meister, Chris Moeller, Vince Salomonson, Junqiang Sun, Gary Toller, Jack Xiong, Eric Vermote, Zhengming Wan, Joe Esposito

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Scheduled Items

Item 1 Instrument Status

JX) Calibration status is good.
Terra Yaw maneuvers are complete.
Terra B28 D8 is very close to the specification and is also out-of-family, but still within the noise spec.
SRCA test requested for Aqua cross-talk analysis. Three commands were dropped during the test commands upload.

RD) The test prep involved dumping and uploading tables. The commands did not dump (no instrument telemetry echo of commands being dumped) but the commands flushed out of the buffer on the day/night mode command flush. S/C commanding of MODIS required ground commands, first ground commands issued in months. This is the first time that ground commands were sent to Aqua MODIS after the SW patch and they did not get through. Ground commanding was not checked after the first SW patch. The second patch for ground commands was not input, tested, or reviewed.

Item 2 Aqua RSB LUTs delivery issue

JX) MCST would like to update the Aqua Reflective LUT file (new delivery). The data has drifted about 1% from the current Aqua LUT.

Terra RSB LUTs delivery issue

JX) MCST has received no feedback from Miami on the new LUT file that was sent. MCST would like to update the current Terra LUT. The LUTs should be delivered only when m1 changes (no more often than two weeks unless a major change suddenly occurs). Should add several files to the LUT delivered to Miami for the new delivery.

BE) Are the new LUTs of measured m_1 constant over a 2-week period?

JX) Yes. The LUTs with measured m1 will be working as step functions for the forward processing.

BE) Can fluctuations affect the science?

JX) MCST can set up a test for this. Would do calibrations over all orbits over a day with SDS closed [more than 14 calibration can be done] (*MCST Action: set up a test over more than 14 orbits to determine the level of m_1 fluctuations*).

BE) Can MCST send the measured m_1 data and times (*MCST Action: send m_1 data to Miami.*).

WE) Appreciate the data from Aqua (Aqua is using measured m_1's). We should consider using measured m_1's for Terra. Fitting reduced the noise from fluctuations but forward processing extrapolation gave larger errors. We can find a method to update the LUTs while minimizing the extrapolation error.

Item 3 MODIS Calibration Briefing Plan for Science Team Meeting

VS) The workshop is planned to be held as a tele-con in February (~2nd week). If many science team members want to hold a meeting in Washington then this plan may change.

JX) If attendees need special issues covered; notify MCST so that the information can be prepared. MCST need advanced notice of a local meeting due to MCST move to SSAI HQ.

Item 4 MCST work on Aqua SWIR OOB correction

JX) Looking for best surrogate Band to correct the leak. CM, EV, and VC will work on this. VC has plots of uncorrected and corrected with different surrogates (e.g. B24, B25, etc.).

Around the Table

Participant: Vince Salomonson – We have an issue with geo-location (Aqua). JX, Robert Wolfe, and others will meet to discuss this issue.

RD) Do other instruments also have this problem? Aqua is within spec at 150m accuracy, but Terra has 50m accuracy.

Participant: Jack Xiong – VC will schedule meeting with CM and EV.

Participant: Bob Evans – We still have the situation (on Terra) where the correction is not the same for all detectors. We (Miami) may be able to fix this down the road.

Participant: Chris Moeller – The thermal leak correction is working well for B24. Want to finish this to get to work on B5-B26 issue. ER2 will fly during the second week in March in Hawaii. The focus is on Aqua. Please inform us about any maneuvers during our calibration.

JX) You can reserve a timeslot with FDD on the website.

RD) What do you get for AIRS/MODIS at 13□m?

CM) MODIS is warmer at 13□m.

JX) Both MODIS/AIRS and MODIS/HIIRS have Terra warmer by about 0.5-1°K than ER2. The 11□m and 12□m look good though.

Next Meeting on February 5, 2003